

In The Claims:

Claims 1-4. (Cancelled).

5. (Currently Amended) ~~The system of claim 3 wherein~~ A system for performing a data synchronization procedure, comprising:

a demultiplexer configured to recover elementary bitstreams, and to extract decode timestamps and output timestamps corresponding to said elementary bitstreams;

one or more decoders configured to decode said elementary bitstreams to produce decoded frames;

an input controller configured to control said one or more decoders according to said decode timestamps;

one or more output modules configured to process said decoded frames to produce processed frames; and

an output controller configured to control said one or more output modules according to said output timestamps, said output controller performing an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps, said data synchronization procedure being performed by a receiver device that receives a multiplexed bitstream from a data source and responsively generates said processed frames to one or more destination devices, said one or more elementary bitstreams including a video bitstream and an audio bitstream, said one or more decoders including a video decoder and an audio decoder, said one or more output modules including a video output module and an audio output module, said output timing resynchronization procedure [[is]] being performed after receiving new output timestamps as a result of a program change event.

Claims 6-10. (Cancelled).

11. (Currently Amended) ~~The system of claim 3 wherein~~ A system for performing a data synchronization procedure, comprising:

a demultiplexer configured to recover elementary bitstreams, and to extract decode timestamps and output timestamps corresponding to said elementary bitstreams;  
one or more decoders configured to decode said elementary bitstreams to produce decoded frames;  
an input controller configured to control said one or more decoders according to said decode timestamps;  
one or more output modules configured to process said decoded frames to produce processed frames; and  
an output controller configured to control said one or more output modules according to said output timestamps, said output controller performing an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps, said data synchronization procedure being performed by a receiver device that receives a multiplexed bitstream from a data source and responsively generates said processed frames to one or more destination devices, said one or more elementary bitstreams including a video bitstream and an audio bitstream, said one or more decoders including a video decoder and an audio decoder, said one or more output modules including a video output module and an audio output module, a system user instructs instructing said receiver device to select a new program, said receiver device responsively performing a program search procedure to locate said new program.

12. (Original) The system of claim 11 wherein said demultiplexer separates a composite bitstream into said elementary bitstreams, said decode timestamps including new decode timestamps, said output timestamps including new output timestamps.
13. (Original) The system of claim 12 wherein said input controller instructs said one or more decoders to generate one of said decoded frames when a corresponding one of said new decode timestamps equals a receiver system time clock.
14. (Original) The system of claim 13 wherein said one or more decoders store said one of said decoded frames into a buffer memory for said one or more output modules to access.
15. (Original) The system of claim 14 wherein said receiver device generates a series of decoded frames, said receiver device subsequently outputting a series of processed frames corresponding to said decoded frames.
16. (Original) The system of claim 14 wherein said output controller determines whether said output frame timings of said processed frames are aligned with said new output timestamps.
17. (Original) The system of claim 16 wherein said output controller performs said output timing resynchronization procedure to align said output frame timings of said processed frames with said new output timestamps.
18. (Original) The system of claim 17 wherein said output controller instructs said one or more output modules to sequentially output one of said processed frames when a corresponding one of said new output timestamps equals a receiver system time clock.

19. (Original) The system of claim 18 wherein said receiver device outputs a series of processed frames corresponding to said decoded frames.

Claims 20-24. (Cancelled).

25. (Currently Amended) ~~The method of claim 23 wherein~~ A method for performing a data synchronization procedure, comprising the steps of:

recovering elementary bitstreams with a demultiplexer that also extracts decode timestamps and output timestamps corresponding to said elementary bitstreams;

decoding said elementary bitstreams with one or more decoders to produce decoded frames;

controlling said one or more decoders according to said decode timestamps by utilizing an input controller;

processing said decoded frames with one or more output modules to produce processed frames; and

controlling said one or more output modules according to said output timestamps by utilizing an output controller that performs an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps, said data synchronization procedure being performed by a receiver device that receives a multiplexed bitstream from a data source and responsively generates said processed frames to one or more destination devices, said one or more elementary bitstreams including a video bitstream and an audio bitstream, said one or more decoders including a video decoder and an audio decoder, said one or more output modules including a video output module and an audio output module, said output timing resynchronization procedure [[is]] being performed after receiving new output timestamps as a result of a program change event.

Claims 26-30. (Cancelled).

31. (Currently Amended) ~~The method of claim 23 wherein~~ A method for performing a data synchronization procedure, comprising the steps of:

recovering elementary bitstreams with a demultiplexer that also extracts decode timestamps and output timestamps corresponding to said elementary bitstreams;

decoding said elementary bitstreams with one or more decoders to produce decoded frames;

controlling said one or more decoders according to said decode timestamps by utilizing an input controller;

processing said decoded frames with one or more output modules to produce processed frames; and

controlling said one or more output modules according to said output timestamps by utilizing an output controller that performs an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps, said data synchronization procedure being performed by a receiver device that receives a multiplexed bitstream from a data source and responsively generates said processed frames to one or more destination devices, said one or more elementary bitstreams including a video bitstream and an audio bitstream, said one or more decoders including a video decoder and an audio decoder, said one or more output modules including a video output module and an audio output module, a system user instructs instructing said receiver device to select a new program, said receiver device responsively performing a program search procedure to locate said new program.

32. (Original) The method of claim 31 wherein said demultiplexer separates a composite bitstream into said elementary bitstreams, said decode timestamps including new decode timestamps, said output timestamps including new output timestamps.

33. (Original) The method of claim 32 wherein said input controller instructs said one or more decoders to generate one of said decoded frames when a corresponding one of said new decode timestamps equals a receiver system time clock.

34. (Original) The method of claim 33 wherein said one or more decoders store said one of said decoded frames into a buffer memory for said one or more output modules to access.

35. (Original) The method of claim 34 wherein said receiver device generates a series of decoded frames, said receiver device subsequently outputting a series of processed frames corresponding to said decoded frames.

36. (Original) The method of claim 34 wherein said output controller determines whether said output frame timings of said processed frames are aligned with said new output timestamps.

37. (Original) The method of claim 36 wherein said output controller performs said output timing resynchronization procedure to align said output frame timings of said processed frames with said new output timestamps.

38. (Original) The method of claim 37 wherein said output controller instructs said one or more output modules to sequentially output one of said processed frames when a corresponding one of said new output timestamps equals a receiver system time clock.

39. (Original) The method of claim 38 wherein said receiver device outputs a series of processed frames corresponding to said decoded frames.

Claims 40-41. (Cancelled).

42. (Original) A system for performing a data synchronization procedure, comprising:

means for recovering elementary bitstreams, and extracting decode timestamps and output timestamps corresponding to said elementary bitstreams;

means for decoding said elementary bitstreams to produce decoded frames;

means for controlling said means for decoding according to said decode timestamps;

means for processing said decoded frames to produce processed frames;

means for controlling said means for processing according to said output timestamps; and

means for performing an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps.

Claim 43. (Cancelled).

44. (Currently Amended) ~~The method of claim 21 wherein~~ A method for performing a data synchronization procedure, comprising the steps of:

recovering elementary bitstreams with a demultiplexer that also extracts decode timestamps and output timestamps corresponding to said elementary bitstreams;

decoding said elementary bitstreams with one or more decoders to produce decoded frames;

controlling said one or more decoders according to said decode timestamps by utilizing an input controller;

processing said decoded frames with one or more output modules to produce processed frames; and

controlling said one or more output modules according to said output timestamps by utilizing an output controller that performs an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps, said output timing resynchronization procedure [[is]] being performed after receiving new output timestamps as a result of a bitstream discontinuity.



45. (Currently Amended) ~~The method of claim 21 wherein~~ A method for performing a data synchronization procedure, comprising the steps of:

recovering elementary bitstreams with a demultiplexer that also extracts decode timestamps and output timestamps corresponding to said elementary bitstreams;

decoding said elementary bitstreams with one or more decoders to produce decoded frames;

controlling said one or more decoders according to said decode timestamps by utilizing an input controller;

processing said decoded frames with one or more output modules to produce processed frames; and

controlling said one or more output modules according to said output timestamps by utilizing an output controller that performs an output timing resynchronization procedure to align output frame timings of said processed frames according to said output timestamps, said output timing resynchronization procedure [[is]] being performed after receiving new output timestamps as a result of a powerup initialization event.